

Amendments to the Claims

This listing of claims will replace all prior versions and listing of claims in the application.

1. (Currently Amended) An integrated actuator meniscus mirror comprising:

an optical substrate including a mirror surface on one side and a support structure on the other side, the support structure including an array of intersecting major ribs wherein at least a plurality of said major ribs meet and cross each other; and

a plurality of actuators each mounted in one of said major ribs ~~embedded in said support structure~~ spaced from and generally parallel to said mirror surface for applying bending moments to said mirror surface for controllably altering the shape of said mirror surface.
2. (Original) The integrated actuator meniscus mirror of claim 1 in which said optical substrate includes an optical material.
3. (Original) The integrated actuator meniscus mirror of claim 1 in which said optical substrate includes an optical material from the group metals, glasses, ceramics, polymers and composites thereof.
4. (Original) The integrated actuator meniscus mirror of claim 1 in which said optical substrate includes silicon carbide.
5. (Cancelled)

6. (Original) The integrated actuator meniscus mirror of claim 5 in which each said actuator is mounted in a said major rib between said intersections.
7. (Original) The integrated actuator meniscus mirror of claim 1 in which said support structure includes cathedral ribs on the back side of said mirror surface.
8. (Original) The integrated actuator meniscus mirror of claim 6 in which each said rib contains a recess for receiving a said actuator.
9. (Original) The integrated actuator meniscus mirror of claim 1 in which a said actuator includes an electrostrictive device.
10. (Original) The integrated actuator meniscus mirror of claim 9 in which said actuator includes a lead magnesium niobate electrostrictive device.
11. (Original) The integrated actuator meniscus mirror of claim 1 in which said support structure includes an array of spaced posts.
12. (Original) The integrated actuator meniscus mirror of claim 11 in which each said actuator extends between a pair of said spaced posts.
13. (Cancelled)
14. (New) An integrated actuator meniscus mirror comprising:

an optical substrate including a mirror surface on one side and a support

structure on the other side, the support structure including an array of intersecting major ribs each having a recess therein; and

a plurality of actuators each mounted in a said recess spaced from and generally parallel to said mirror surface for applying bending moments to said mirror surface for controllably altering the shape of said mirror surface.

15. (New) An integrated actuator meniscus mirror comprising:

an optical substrate including a mirror surface on one side and a support structure on the other side, the support structure including an array of intersecting major ribs and an array of spaced posts; and

a plurality of actuators each mounted in one of said major ribs spaced from and generally parallel to said mirror surface for applying bending moments to said mirror surface for controllably altering the shape of said mirror surface.

16. (New) The integrated actuator meniscus mirror of claim 15 in which each said actuator extends between a pair of said posts.